Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Use of Spectrum Bands Above 24 GHz For Mobile Radio Services	)	GN Docket No. 14-177
	)	
Establishing a More Flexible Framework to Facilitate Satellite Operations in the 27.5-28.35 GHz and 37.5-40 GHz Bands	)	IB Docket No. 15-256
	)	
Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services	)	WT Docket No. 10-112
	)	
Allocation and Designation of Spectrum for Fixed-Satellite Services in the 37.5-38.5 GHz, 40.5-41.5 GHz and 48.2-50.2 GHz Frequency Bands; Allocation of Spectrum to Upgrade Fixed and Mobile Allocations in the 40.5-42.5 GHz Frequency Band; Allocation of Spectrum in the 46.9-47.0 GHz Frequency Band for Wireless Services; and Allocation of Spectrum in the 37.0- 38.0 GHz and 40.0-40.5 GHz for Government Operations	)	IB Docket No. 97-95

REPLY COMMENTS OF SES AMERICOM, INC AND O3B LIMITED

SES Americom, Inc. and its affiliate, O3b Limited (collectively "SES"), hereby submit this reply in support of the comments submitted by the Satellite Industry Association[1] in the above-referenced proceeding endorsing the Commission's proposal to expand fixed-satellite service ("FSS") access to the 24.75-25.25 GHz ("24 GHz") band.[2] SES also responds to

[1] Comments of the Satellite Industry Association, filed in GN Docket No. 14-177, *et al*. (Jan. 23, 2018) ("SIA Comments").

[2] *Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al*., Second Report and Order, Second Further Notice of Proposed Rulemaking, and Memorandum Opinion and Order, FCC 17-152, 32 FCC Rcd 10988 (2017) ("*Second Notice*").

comments submitted by terrestrial interests that seek to either restrict or virtually eliminate FSS access to the band.

I. THE COMMISSION SHOULD ADOPT ITS PROPOSAL FOR EXPANDED FSS ACCESS TO THE 24 GHZ BAND

SES supports the Commission's proposals: (1) to allow individually licensed FSS earth stations to operate in the 24 GHz band on a co-primary basis with services operating in the Upper Microwave Flexible Use Service ("UMFUS") pursuant to the limits set out in Section 25.136(d); and (2) to eliminate footnote NG535 to allow FSS general use of the band. As SIA points out,

> [a]doption of these rule revisions is consistent with the Commission's goal of promoting efficient use of millimeter-wave spectrum by all radio services, and will help to unleash the potential of FSS satellite systems to provide advanced broadband services throughout the United States.[3]

Filings by SIA and numerous satellite interests have demonstrated that the demand for satellite service, including broadband service to a variety of industries, is increasing, and satellite operators are innovating to meet that demand.[4] Expanded access to the 24 GHz band will encourage further innovation that will ultimately benefit American businesses and consumers.

T-Mobile grossly mischaracterizes satellite's current and future demand for spectrum, and the company's suggestion that FSS use of the 24 GHz band should be limited to existing licensed earth stations must be rejected.[5] T-Mobile alleges that satellite services do not

[3] SIA Comments at 2.
[4] *See Id*. at 3-5; *see also* Comments of SIA, filed in GN Docket No. 14-177, et al. (Sept. 30, 2016), at 2-4, Comments of O3b Limited, filed in GN Docket No. 14-177, *et al*. (Jan. 28, 2016), at 2; Comments of The Boeing Company, filed in GN Docket No. 14-177, *et al*. (Sept. 30, 2016) at 3-5; Comments of ViaSat Inc., filed in GN Docket No. 14-177, *et al*. (Sept. 30, 2016), at 2-4; Reply Comments of EchoStar Satellite Operating Corporation and Hughes Network Systems, LLC, filed in GN Docket No. 14-177, *et al*. (Oct. 31, 2016), at 4-5.
[5] Comments of T-Mobile, filed in GN 14-177, *et al.* (Jan. 23, 2018) at 5-6.

need additional spectrum based on the limited number of direct-to-consumer broadband subscriptions cited in the SIA annual State of the Satellite Industry Report.[6] T-Mobile conveniently overlooks all of the other broadband services that satellites provide to businesses, such as energy companies, airlines, and even companies that in turn serve consumers. Fortunately, the Commission recognizes the value that satellite operators contribute to the U.S. economy and their need to grow and innovate in the future. The Commission's proposal reflects that understanding and would allow FSS access to much-needed additional spectrum without significantly impinging on UMFUS operations in the band.

There is also no need to add a footnote to the U.S. Table of Allocations to reiterate that UMFUS is the predominant service in the band as proposed by the Commission[7] and advocated by CTIA.[8] The rules that the Commission has proposed make such prioritization clear. Adding a footnote would introduce unnecessary and redundant regulatory language without adding any clarification for licensees.

II. THE COMMISSION SHOULD ELIMINATE FOOTNOTE NG535 IN ITS ENTIRETY

SES also agrees with the Commission's proposal to revise its rules to allow FSS to access the 24 GHz band on equal footing with broadcasting-satellite service ("BSS") feeder links (a subset of FSS), including elimination of footnote NG535.[9] As SIA explained in its comments, removing the priority for BSS operations in the 24.75-25.05 GHz band and the restriction on FSS operations that permits only BSS feeder links in the 25.05-25.25 GHz band

[6] *Id.*, *citing* Satellite Industry Association, 2017 State of the Satellite Industry Report, 13 (2017), available http://www.sia.org/wp-content/uploads/2017/07/SIA-SSIR-2017.pdf.
[7] *Second Notice* at ¶ 94.
[8] Comments of CTIA, filed in GN Docket No. 14-177, *et al*. (Jan. 23, 2018) at 12-13.
[9] *Second Notice* at ¶¶ 94-97.

"would provide a much needed source of uplink capacity for satellite broadband systems."[10] Expanded access for FSS would not have a detrimental effect on BSS operations because the two-degree spacing rules would protect BSS feeder links from unacceptable interference.[11]

The Commission should reject AT&T's suggestion that subsection (a) of footnote NG535 should be retained.[12] AT&T argues that the BSS feeder link priority over FSS in the 24.75-25.05 GHz band should be retained because it will protect "significant investments that operators have made in developing innovative BSS systems in the band."[13] As an initial matter, that investment will be protected under the Commission's proposal because existing BSS earth stations will have priority over subsequent FSS operations.

Second, AT&T's proposal will only undermine the Commission's goal of increasing flexibility for FSS operations because FSS operators will not have certainty that use of the 24.75-25.05 GHz band will be protected over the life of a satellite and associated earth stations. If a satellite is built and a ground station deployed to operate in the band and a BSS operator seeks to build a competing satellite and earth station, the FSS operator's investment will be either devalued or eliminated completely. The Commission's proposal appropriately protects existing BSS operations and allows for growth while also allowing expanded access for FSS operations, all ultimately serving the goal of efficient spectrum use.

Third, BSS feeder links are technically similar to other FSS operations and can easily share with other FSS applications in a two-degree spacing environment, in contrast to BSS downlinks which typically require greater orbital separations. Additionally, there has been very

[10] SIA Comments at 9.
[11] *Id.; see also Second Notice* at ¶ 94.
[12] Comments of AT&T Services, Inc., filed in GN Docket No. 14-177, *et al*. (Jan. 23, 2018), at 6-7.
[13] *Id*. at 7.

limited development of BSS feeder links in 24.75-25.05 GHz.[14] Expanding the types of FSS services that can use the frequency band will enhance spectrum efficiency.

III. CONCLUSION

For the foregoing reasons and those set forth in the SIA Comments, the Commission should adopt its proposal to grant FSS expanded access to the 24.75-25.25 GHz band pursuant to the restrictions in Section 25.136(d) of the Commission's rules and on equal footing with BSS operations.

Respectfully submitted,

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[14] As SIA notes in its comments, there are currently only nine BSS feeder link earth station sites licensed in the 24.75-25.05 GHz band. SIA Comments at 7.